

## NATIONAL TRANSPORTATION SAFETY BOARD

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IN RE: :
:
THE EL FARO INCIDENT OFF : NTSB Accident No.
THE COAST OF THE BAHAMAS ON : DCA16MM001
OCTOBER 1, 2015 :
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Interview of: CHRISTOPHER J. EDDY

Tuesday,
June 14, 2016

U.S. Coast Guard Base
Portsmouth, Virginia

BEFORE:

JON FURUKAWA, NTSB
PAUL WEBB, U.S. Coast Guard
LT. [REDACTED] JAG Corps

This transcript was produced from audio
provided by the National Transportation Safety Board.

TABLE OF CORRECTIONS TO TRANSCRIPT OF INTERVIEW FOR

Christopher J. Eddy

TAKEN ON

June 14, 2016

PAGE NUMBER	LINE NUMBER	CURRENT WORDING	CORRECTED WORDING
2	2	(6:53 p.m.)	(4:53 p.m.)
3	12	bosun mate	Boatswain's Mate
7	8	And no more SAR controller.	And no more standing SAR controller.
7	14	as engagement goes from policy	as dictated from policy
7	17	access – access	ACTSUS -- ACTSUS
8	16	I am on call for SMC	I am qualified for SMC
17	18	MR. FURUKAWA	LIEUTENANT
17	25	MR. FURUKAWA	LIEUTENANT
18	10	MR. FURUKAWA	LIEUTENANT
18	14	MR. FURUKAWA	LIEUTENANT
18	17	MR. FURUKAWA	LIEUTENANT
22	1	expansive, by – linear	expansive vice linear
23	3	shouting just somebody get the	setting up the
23	8	one on one	one-o-one (101)
26	15	MR. FURUKAWA	LIEUTENANT
26	20	MR. FURUKAWA	LIEUTENANT
26	23	MR. FURUKAWA	LIEUTENANT
27	2	MR. FURUKAWA	LIEUTENANT
27	14	MR. FURUKAWA	LIEUTENANT
35	23	conduit up the program	conduit up to program

If, to the best of your knowledge, no corrections are needed kindly circle the statement "no corrections needed" and initial in the space provided.

NO CORRECTIONS NEEDED.

Initials

Printed Name of Person providing the above information

Signature of Person providing the above information

8/17/16

Date

OMS Transcript Errata 5.27.15

P-R-O-C-E-E-D-I-N-G-S

(6:53 p.m.)

MR. FURUKAWA: It is Tuesday, July 14th, 2016. The time is 1653. We are at the Coast Guard Base in Portsmouth, Virginia, and we're here to interview Mr. Christopher J. Eddy, SAR specialist with Coast Guard District 7, and -- let's see. Mr. Eddy, do you acknowledge that this interview is being recorded?

MR. EDDY: Yes, sir.

MR. FURUKAWA: And do you acknowledge that we have discussed the NTSB mandatory briefing items?

MR. EDDY: Yes, sir.

MR. FURUKAWA: Okay. So we'll go around the room and we'll state our names and affiliation. I'm Jon Furukawa with the NTSB.

MR. WEBB: Paul Webb with the Coast Guard.

MR. EDDY: Christopher Eddy, Coast Guard.

LIEUTENANT [REDACTED] [REDACTED] [REDACTED] Coast Guard, representing the witness.

MR. FURUKAWA: Okay. And can I just call you Chris?

MR. EDDY: Chris, sir? Yes.

MR. FURUKAWA: Okay. Chris, so we can we just start off, and let me know about your professional background. How old are you?

1 MR. EDDY: I'm 48.

2 MR. FURUKAWA: Okay. And can you tell us  
3 about your professional background.

4 MR. EDDY: I went to -- went into the Coast  
5 Guard in 1986, and I retired in 2006. My -- my work  
6 history involves Search and Rescue, law enforcement,  
7 maritime -- maritime pollution. And I retired in 2006.

8 MR. FURUKAWA: Okay. Were you enlisted or  
9 officer?

10 MR. EDDY: I was enlisted.

11 MR. FURUKAWA: And what was your rate?

12 MR. EDDY: I was a bosun mate, first.

13 MR. FURUKAWA: Okay.

14 MR. EDDY: And then I went OS.

15 MR. FURUKAWA: Okay.

16 MR. EDDY: And I retired as an OS chief.

17 MR. FURUKAWA: OSC. Okay. Okay. Let's see.

18 And did you work at Command Centers, like -- such as  
19 what you're doing now, while you were enlisted?

20 MR. EDDY: I had different assignments. My  
21 first Command Center was in 1999 --

22 MR. FURUKAWA: Okay.

23 MR. EDDY: -- at Sector Miami.

24 MR. FURUKAWA: Okay.

25 MR. EDDY: And my second Command Center is

1 the District 7 Command Center, where I went in two  
2 thousand -- 2002.

3 MR. FURUKAWA: Okay. And you said that you  
4 retired in 2006.

5 MR. EDDY: Yes.

6 MR. FURUKAWA: So what did you do after 2006?

7 MR. EDDY: I retired as from -- active duty,  
8 and I went in to become a civilian for the Coast Guard,  
9 working as a watchstander at District 7.

10 MR. FURUKAWA: Okay. And that was a  
11 watchstander, not the SAR specialist?

12 MR. EDDY: Not the SAR specialist.

13 MR. FURUKAWA: So how long were a watch -- a  
14 civilian watchstander for?

15 MR. EDDY: Oh, the GS-11 -- I retired in  
16 2006, in October, and I started in October of 2006 as a  
17 GS-11, and I was a GS-11 from 2006 to 2009.

18 MR. FURUKAWA: Okay.

19 MR. EDDY: And then I moved up to the lead  
20 Command Center controller in 2009 until 2010. I was a  
21 GS-12 at that point, and then from 2010 to current,  
22 I've become a GS-13 SAR specialist.

23 MR. FURUKAWA: Okay. And in 1999 and 2002,  
24 when you're active duty at the Sector Miami and the D7  
25 Command Center, were you a watchstander?

1 MR. EDDY: Yes.

2 MR. FURUKAWA: Okay. So kind of like the same  
3 thing that you're doing from 2006 to 2009. The only  
4 thing is active duty?

5 MR. EDDY: 2006, onward, I was a civilian --

6 MR. FURUKAWA: Right.

7 MR. EDDY: -- in the Command Center.

8 MR. FURUKAWA: But pretty much the same  
9 thing, though?

10 MR. EDDY: Yes.

11 MR. FURUKAWA: Okay. So Command Center  
12 controller. That's a promotion.

13 MR. EDDY: Yes, it is.

14 MR. FURUKAWA: Okay.

15 MR. EDDY: Because I went from a GS-11 to a  
16 GS-12.

17 MR. FURUKAWA: Okay. What were your duties as  
18 a Command Center controller?

19 MR. EDDY: My duties were the Command Duty  
20 Officer, which provides oversight to District  
21 operations, to include Search and Rescue, law  
22 enforcement, all of the other missions that the Coast  
23 Guard has.

24 MR. FURUKAWA: Okay. So as a watchstander,  
25 you weren't CDO?

1 MR. EDDY: I was a CDO. So as a GS-11, I was  
2 a CDO.

3 MR. FURUKAWA: You were CDO also?

4 MR. EDDY: Correct.

5 MR. FURUKAWA: Okay.

6 MR. EDDY: This is before the days that lead  
7 Command Center controllers were 11's.

8 MR. FURUKAWA: Okay. So what's the  
9 difference between a watchstander and a Command  
10 controller -- Command Center controller?

11 MR. EDDY: Right. So I need to correct  
12 myself. I arrived at District 7 in 2004.

13 MR. FURUKAWA: 2004. Okay.

14 MR. EDDY: And I retired in 2006. So from '99  
15 to 2004. So I retired, became a GS-11, which was a --  
16 in -- in 2006, it was a SAR controller.

17 MR. FURUKAWA: Okay.

18 MR. EDDY: And I was a CDO as a SAR  
19 controller.

20 MR. FURUKAWA: Okay.

21 MR. EDDY: And a CDO is the lead position on  
22 the watch for D7.

23 MR. FURUKAWA: Okay. And you're -- let's see  
24 -- a Command Center controller, you were --

25 MR. EDDY: And then -- so my PD was a SAR



1 controller, and then it went -- I became a lead Command  
2 Center controller. That's what it was called.

3 MR. FURUKAWA: Okay.

4 MR. EDDY: And I was a GS-12.

5 MR. FURUKAWA: Okay.

6 MR. EDDY: Still in the CDO position at the  
7 watch.

8 MR. FURUKAWA: Okay. And no more SAR  
9 controller. You're CDO?

10 MR. EDDY: Correct.

11 MR. FURUKAWA: Okay. And what are your duties  
12 as a SAR specialist for D7?

13 MR. EDDY: My duties as a SAR specialist are  
14 to ensure the SAR Program -- as engagement goes from  
15 policy -- is met. I also serve as a Search and Rescue  
16 mission coordinator for JRCC Miami, and I also have  
17 access -- access authority delegation as well.

18 MR. FURUKAWA: Okay.

19 MR. EDDY: I'm involved with training.

20 MR. WEBB: Chris, this is Paul Webb.  
21 Presently, do you stand CDO or OU, or any of those  
22 positions?

23 MR. EDDY: I do. I stand CDO watches.

24 MR. WEBB: You do two --

25 MR. EDDY: Two a month. Do I need to say my

1 name before I --

2 MR. WEBB: No, I do that because I have to.

3 MR. FURUKAWA: I think they got you.

4 MR. EDDY: Okay.

5 MR. FURUKAWA: Okay. So you stand two CDO  
6 watches per month to keep up your qualifications?

7 MR. EDDY: Yes, sir.

8 MR. FURUKAWA: But -- are you the training  
9 officer?

10 MR. EDDY: I'm not.

11 MR. FURUKAWA: No. Okay. Do you stand the  
12 same watches as Captain Coggeshall, the SMC?

13 MR. EDDY: An SMC's not a watch position.

14 MR. FURUKAWA: Okay. Okay. Can you be the  
15 SMC?

16 MR. EDDY: I -- I am on call for SMC.

17 MR. FURUKAWA: Okay.

18 MR. EDDY: I'm one of two in rotation, myself  
19 and Captain Coggeshall.

20 MR. FURUKAWA: Okay. So you guys --

21 MR. EDDY: So it's not -- when you say a  
22 watch position, I'm thinking a watch position. It's a -  
23 - it's a -- it's a status.

24 MR. FURUKAWA: Okay.

25 MR. EDDY: Or it's a delegation.

1 MR. FURUKAWA: So if you're on the -- I guess  
2 you and Captain Coggeshall standing port and starboard  
3 for on call, for SMC?

4 MR. EDDY: The way that Captain Coggeshall  
5 and I stand SMC is we do a week of SMC, and then a week  
6 of ACTSUS authority.

7 MR. FURUKAWA: What do you mean, ACTSUS  
8 authority?

9 MR. EDDY: So you have ACTSUS -- there --  
10 it's a delegation for --

11 LIEUTENANT [REDACTED] It's an -- this is  
12 Lieutenant [REDACTED] That's an abbreviation; right?

13 MR. EDDY: Yes. I'm sorry. ACTSUS -- I think  
14 it means Active Suspension authority. That's what that  
15 stands for. So basically -- thank you. Basically, what  
16 that is is it's the -- it's a final review, and the  
17 final agreement that a Coast Guard case, SAR case  
18 should be suspended.

19 MR. FURUKAWA: Okay. So if you're on that --  
20 Captain Coggeshall just happened to be SMC for that  
21 week.

22 MR. EDDY: Yes, sir.

23 MR. FURUKAWA: Or you could just as well have  
24 been the SMC for the El Faro case?

25 MR. EDDY: Yes, sir.

1 MR. FURUKAWA: Okay. And with that, I'm going  
2 to hand it on over to Mr. Paul Webb.

3 MR. WEBB: Okay. You first -- tell me when  
4 you first learned about the case.

5 MR. EDDY: I first learned about the case  
6 through the GoodLink in my government phone.

7 MR. WEBB: Okay. And how long after the case  
8 started was that?

9 MR. EDDY: It was probably within an hour.

10 MR. WEBB: Okay.

11 LIEUTENANT [REDACTED] This is Lieutenant [REDACTED]  
12 So that was the morning of the 1st; right?

13 MR. EDDY: Right.

14 MR. WEBB: Morning of the 1st. Okay. So the  
15 case is going on, and because it's a case that you're  
16 going to have people in the water, or a missing vessel,  
17 the watch is starting to do SAROPS. So how involved  
18 were you at any point in the initial part of starting  
19 the SAROPS? Did you get involved with any of that?

20 MR. EDDY: I did not.

21 MR. WEBB: Okay. So when did you get involved  
22 with the issues that start occurring with SAROPS?

23 MR. EDDY: I got involved on Saturday  
24 morning.

25 MR. WEBB: And what date was that? The 2nd or

1 the 3rd?

2 MR. EDDY: I don't have that thing. I think  
3 it was -- I don't -- I don't have the date -- the date.  
4 So it was the -- the 3rd.

5 MR. WEBB: The 3rd.

6 MR. EDDY: Thank you.

7 MR. WEBB: And how long -- they started  
8 having SAROPS issues. How long were they having those  
9 issues, or prior to you learning about the problems  
10 that they were having?

11 MR. EDDY: With this particular case?

12 MR. WEBB: Yes.

13 MR. EDDY: They were having issues -- I  
14 didn't get involved with the initial planning portions  
15 of it. I noticed that they had issues that -- on the --  
16 on the 3rd, of that morning, when the -- it was the  
17 first day that we could actually get resources into --  
18 into the site.

19 MR. WEBB: Correct.

20 MR. EDDY: And so that's when we were made  
21 aware that the SAROPS was giving us issues. And when I  
22 say issues, it was not providing a completed search  
23 action plan in the Scenario Wizard.

24 MR. WEBB: You mean the actual printout, the  
25 search action plan --

1 MR. EDDY: We weren't able to get through the  
2 EDS products, which is the Environmental Data Server,  
3 which enables us, to give us the list of conditions on  
4 scene. That's the wind, the ocean, weather conditions.

5 MR. WEBB: So they -- and so up to the third  
6 day, we're not able to successfully run a simulator  
7 from getting in?

8 MR. EDDY: Correct.

9 MR. WEBB: Okay. And how were -- how did the  
10 watch mitigate the issue with SAROPS, prior to --

11 MR. EDDY: Well, they contacted the C3CEN,  
12 and they -- they talked to an -- a technician, and the  
13 technician was, you know, working the issue with -- I  
14 wasn't part of that discussion. What they talked about  
15 on the phone, I wasn't part of that discussion.

16 MR. WEBB: Okay. Were they -- when they --  
17 you talked to the C3CEN rep. You don't know who it was,  
18 or --

19 MR. EDDY: I didn't talk with the C3CEN rep,  
20 but I want to say it's Jack -- or Mr. John Squires.

21 MR. WEBB: John Squires. Okay. And --

22 MR. EDDY: And the reason why I said that is  
23 because he's the guy we always talk to for SAROPS  
24 issues.

25 MR. WEBB: Right. And were they able to work

1 out any of the issues with John, or whoever was on the  
2 phone?

3 MR. EDDY: The only thing they were able to  
4 do is -- is us to jump off -- go into a different  
5 server. So they tried to trouble-shoot some of the  
6 issues we were having. But to my -- to my knowledge,  
7 this was not -- it was not rectified through that  
8 interaction with him.

9 MR. WEBB: Okay. Was this something new, do  
10 you know, for the -- for the technicians, the SAROPS  
11 technicians? Had they run into that issue before?

12 MR. EDDY: Of it -- just the issue we were  
13 having?

14 MR. WEBB: Yes. With heavy weather and --

15 MR. EDDY: Well, and that's -- what we found  
16 is that SAROPS was giving us some limitations with  
17 respect to some of the environmental data. The max  
18 winds that SAROPS would give us through the EDS  
19 products was 40 knots. And so we know the on-scene  
20 weather conditions were 120 knots, two hundred and  
21 beyond wind gusts.

22 So I was notified of this issue, and I  
23 reached up to Jack Frost, the SAROPS program manager,  
24 and just explained to him, on my -- on the phone, what  
25 characteristics SAROPS was -- was doing.

1           It would default to 40 knots, and then it  
2 would cycle through, and it wouldn't --

3           MR. WEBB: But even with the 40 knot default  
4 -- it didn't give you an answer to the problem?

5           MR. EDDY: No. It -- it wouldn't; no.

6           MR. WEBB: It just --

7           MR. EDDY: It froze and then --

8           MR. WEBB: -- froze up, and --

9           MR. EDDY: -- we sit there and -- now,  
10 again, I didn't have my hands on the keyboard. There  
11 could have been some times when it did cycle through.  
12 But was -- what was briefed to me was we -- its  
13 defaults to 40 knots to what -- you know, we can't take  
14 it beyond 40 knots.

15           And there is also -- the ship was three --  
16 791 feet, and you couldn't -- the max length of the  
17 vessel was 300 feet -- max length in SAROPS was 300  
18 feet.

19           MR. WEBB: And so did Jack have any  
20 solutions?

21           MR. EDDY: So I immediately recognized the  
22 fact that this was not normal, because I concluded we  
23 were in a hurricane, and that there was going to be  
24 some error with respect to what the program was giving  
25 us.



1           So I wanted to ask Jack Frost what we can  
2 expect and what our baseline would be to go forward  
3 with search planning. So if you only got 40 knots,  
4 that's what it's going to give you. So I was trying to  
5 explore the limitations -- like, okay, first, identify  
6 any issues with it, should we trust it or not. What's  
7 the validity of what the products are going to give us.  
8 That's what I was seeking. I was a little bit out of my  
9 normal technical realm --

10           MR. WEBB: Right.

11           MR. EDDY: -- so I had to speak to someone  
12 who was intimately familiar with the --

13           MR. WEBB: So I haven't personally run into  
14 this issue yet. I'm not saying that I won't. So it  
15 would -- so SAROPS, when it was saying, okay, I can't  
16 go beyond 40 knots, so I'm just going to stop working.  
17 Or -- so at no point was it able to even give you a  
18 drift with its maximum capabilities of 40 knots, 300  
19 foot vessel drift? It wouldn't -- it wouldn't provide  
20 you an answer, even with that?

21           MR. EDDY: At some point it did, but I don't  
22 know which point that was, and what part of the case.  
23 Because what we did is we -- we stepped it out. We  
24 matched a 120 knots and we took it. That velocity, that  
25 drift vector, where they gave us, I multiplied it by

1 three times. So we tried to give it a wind --

2 MR. WEBB: And you did that outside of  
3 SAROPS?

4 MR. EDDY: Correct.

5 MR. WEBB: So basically you used a minimax?

6 MR. EDDY: Correct. Old school way.

7 MR. WEBB: Right. And --

8 MR. EDDY: Well, when I say old school way,  
9 it was more of a manual --

10 MR. WEBB: Was that laid out on a chart, or  
11 was that in SAROPS? How did you --

12 MR. EDDY: We laid it out on a chart.

13 MR. WEBB: Okay.

14 MR. EDDY: We -- or we laid it out on an  
15 easel.

16 MR. WEBB: On an easel?

17 MR. EDDY: Yes. And we just drew it out on a  
18 greaseboard, basically.

19 MR. WEBB: Was there any other instabilities  
20 with SAROPS during -- besides this 40 knot issue --  
21 that you were experiencing during the case, even after  
22 the weather calmed down enough that it would start  
23 giving you results?

24 MR. EDDY: It kept -- yes, sir, there was. A  
25 lot of other issues, to include it would freeze -- I

1 say freeze -- the processor, or the -- I guess the  
2 thinking portion of the -- of the program would stop  
3 working, and so you'd get a screen with nothing moving,  
4 and then it would -- it would black out. Or it would  
5 just go away.

6 MR. WEBB: It would just -- the SAROPS itself  
7 would disappear --

8 MR. EDDY: Would just -- would just  
9 disappear.

10 MR. WEBB: -- or it would close out all the  
11 way?

12 MR. EDDY: No; just disappear.

13 MR. WEBB: The case itself or --

14 MR. EDDY: That -- that epoch you're on would  
15 disappear.

16 MR. WEBB: Okay.

17 MR. EDDY: So --

18 MR. FURUKAWA: What is an epoch?

19 MR. EDDY: An epoch is basically a -- an  
20 entire drift solution, to include all of the errors,  
21 all of the times, all of the inputs, with it cycling  
22 through to --

23 MR. WEBB: Basically your whole -- your whole  
24 --

25 MR. FURUKAWA: Is that an acronym for

1 something, or --

2 MR. EDDY: Epoch is a -- is a language in --  
3 in the SAROPS handbook, I believe it is.

4 MR. WEBB: Yes; yes.

5 MR. EDDY: And -- and it's -- it's basically  
6 a whole evolution of a drift.

7 MR. WEBB: Yes. It's the period a time of  
8 that drift, that 12 hour -- they call it an epoch. So  
9 if you've got 12 hour drift --

10 MR. FURUKAWA: So it's referring to time,  
11 it's not an acronym?

12 MR. WEBB: Right. Right. It's the time period  
13 of that.

14 MR. FURUKAWA: Okay.

15 MR. WEBB: You know, like -- so there are  
16 epochs in the world --

17 MR. FURUKAWA: Yes.

18 MR. WEBB: -- that scientists just decided  
19 to use that name, to make it sound better.

20 But -- so it would disappear. Would the case  
21 still be there, or just that drift? Like your Alpha  
22 Bravo drift. So say you're on your Bravo drift, and is  
23 that what disappeared and the case would still be  
24 there? Or would the whole thing disappear?

25 MR. EDDY: I don't know if the whole case

1 disappeared. I know that we had to call John Squires,  
2 who moved us to different servers. So this case was  
3 built on different servers, because it kept crashing,  
4 and the trouble-shooting component or solution was to  
5 move it to different servers.

6 MR. WEBB: How many servers? Do --

7 MR. EDDY: I know at least two. East Coast,  
8 and then a server that he identified. I'm not sure what  
9 -- but we work on East Coast servers, and he identified  
10 a couple of other servers. Now I don't know those  
11 specific server names, or those --

12 MR. WEBB: So each time you moved to a  
13 different server, did you have to start SAROPS --

14 MR. EDDY: Well, he'd have to --

15 MR. WEBB: -- from the very beginning?

16 MR. EDDY: As I understand it, he had to  
17 build it, because it was in a whole new -- there was a  
18 coordination between the watch and John Squires to  
19 replicate the -- the SAROPS drift. Or the SAROPS build.

20 MR. WEBB: Did that work?

21 MR. EDDY: I don't -- I don't remember being  
22 briefed that it worked, but it was the solution that  
23 they came up with.

24 MR. WEBB: So the first -- at the beginning  
25 of the case, it wasn't working, and in the second --

1 although you got -- the second you got one aircraft in  
2 to take a look -- the C-130, right -- it got damaged.  
3 And then the third was the first day you really were  
4 able to start --

5 (Simultaneous speaking.)

6 MR. EDDY: Well, the first two days --

7 MR. WEBB: -- the SAROPS --

8 MR. EDDY: The first two days from --

9 MR. WEBB: And you attempted to drift the  
10 first two days; right?

11 MR. EDDY: Well, we didn't really run our  
12 first drift until the 3rd.

13 MR. WEBB: Okay. So the 3rd was the first  
14 attempt at running --

15 MR. EDDY: That -- that I was a part of.

16 MR. WEBB: Okay.

17 MR. EDDY: That I worked with. Though I can't  
18 speak to -- if the watch ran it the first couple days,  
19 when under -- not my direction. Captain Coggeshall may  
20 have directed that. But in terms of a -- in terms of a  
21 drift, we knew where the ship was, and so it was a  
22 matter of just waiting for the storm to vacate, for  
23 lack of a better word, so we could get to the ship.

24 So there wasn't -- I wouldn't see a need to  
25 have a lot of SAROPS in that, because we had a good

1 idea where the ship was.

2 MR. WEBB: Okay. So on the 3rd you had  
3 problems, and the 4th -- which is the day you found the  
4 survival suit -- did SAROPS start working again, or  
5 were you still having issues with it crashing?

6 MR. EDDY: We were able -- I don't know -- I  
7 can't speak to the specifics of the crashing cycles,  
8 and how many crashed. But we developed two search areas  
9 that were 60 miles apart. Or we developed two -- we  
10 found -- actually, we found two debris fields that were  
11 60 miles in difference. I'm sorry. Sixty miles apart.  
12 Sorry. And that was based upon stepping the 40 knots  
13 out three times.

14 MR. WEBB: Three times. And that was the --  
15 so by doing that, that's -- so that's where you found  
16 those debris fields. So there was nothing south of  
17 that. It was clear you -- when -- as the search went  
18 on, did you find any other debris fields to the south  
19 or --

20 MR. EDDY: There was -- there was two --  
21 there was two concentrated debris fields that were 60  
22 miles apart.

23 MR. WEBB: Okay. And those were the two --

24 MR. EDDY: They -- they weren't affected so  
25 much by the currents, because the currents in there

1 were more expansive, by -- linear. So it was the --  
2 yes.

3 MR. WEBB: Okay. And on the 4th, did SAROPS  
4 crash anymore?

5 MR. EDDY: On the 4th, I was dispatched to  
6 Jacksonville. So I can't speak to how often it crashed  
7 on the 4th. The 4th was Sunday; right?

8 MR. WEBB: I believe so.

9 MR. EDDY: Yes. Because I went to -- I went  
10 to Jacksonville on -- I'm sorry. I went to Jacksonville  
11 on Monday.

12 MR. WEBB: No, the 4th was a Monday or  
13 Tuesday, wasn't it?

14 MR. FURUKAWA: The 4th is a Monday?

15 MR. WEBB: Yes. The 4th was Monday.

16 MR. FURUKAWA: I thought it was -- oh.

17 MR. WEBB: So -- okay. So you were kind of  
18 out of what was happening in the Command Center on the  
19 4th, and is that basically until the end of the case  
20 you were up in Jacksonville?

21 MR. EDDY: Correct.

22 MR. WEBB: Okay.

23 MR. EDDY: Now my interaction from  
24 Jacksonville to the watch floor was done through --

25 MR. WEBB: The 4th was a Sunday.



1 MR. EDDY: So when I -- when Captain  
2 Coggeshall would give the morning brief, I kind of  
3 recall him shouting just somebody get the strategy of  
4 the plans. During my engagement with the families, I  
5 was asked some technical questions of how this -- you  
6 know, how SAROPS works, and just giving them a layout  
7 of our search planning, and give them like a -- well,  
8 like basically what I call a one on one. And during my  
9 interaction, I was talking to people up back at the  
10 watch floor, get -- asking specific succinct questions  
11 about SAROPS.

12 Like, okay, where are you at with this?  
13 What's the velocity here? And they were able to give me  
14 this information.

15 So -- now that tells me that SAROPS was  
16 providing some value to the -- the case aspects of it,  
17 and the drift, because they were giving me reference  
18 points of particles, and things like this.

19 MR. WEBB: So the case is done, is over, and  
20 they closed out the SAROPS. Now I know from trying to  
21 recover that case that it disappeared. Did you guys  
22 start having --

23 MR. EDDY: We --

24 MR. WEBB: -- issues with the completed  
25 SAROPS, after the case was closed?

1 MR. EDDY: Well, the -- the -- we have our  
2 own localized folder that we keep, you export -- or you  
3 archive SAROPS into this, create your own copies. In  
4 this instance, as I understand it, that couldn't be  
5 done because it was built on so many different servers.  
6 Because it kept -- C3CEN kept moving us to different  
7 servers.

8 MR. WEBB: So you couldn't call one of those  
9 up off of one of the servers and --

10 MR. EDDY: We couldn't do it locally.

11 MR. WEBB: Couldn't do it locally.

12 MR. EDDY: Because it -- it would -- the way  
13 that the interface went with C3CEN -- okay, let's --  
14 let me take it, let's move it to this -- or I'll move  
15 you to this server. So then in the heat of that moving,  
16 we were -- we were trying to get it moving, and we  
17 didn't say -- we -- we didn't care what server it was  
18 on, but we cared that the server that it was on worked.

19 And so we -- we got it on that. So it  
20 became -- there are so many different fluctuations, the  
21 server interface with that. We never created a local  
22 copy of it.

23 MR. WEBB: So were you able to -- so you just  
24 weren't able to run and export it when you tried to  
25 export it? Did it fail, or was it an export you even

1 attempted, or how was it --

2 MR. EDDY: I'm not certain it was attempted,  
3 and I'm not certain that it failed. I just know that we  
4 went back in to -- to try to recover it. It wasn't in  
5 our local folders.

6 MR. WEBB: Okay.

7 MR. EDDY: And talking to the watch --  
8 Captain Coggeshall, and John Squires, is because it  
9 kept -- during the triage of trying to get it  
10 rectified, whatever the issue was, one of the fixes  
11 proposed by the engineers was to move it to different  
12 servers. So the consensus was that it was built on  
13 many different servers, and so there was no codified --  
14 or centralized one place where we could actually --

15 MR. WEBB: So that -- when they built it on a  
16 -- on a different server -- so did they just take only  
17 part of the case, or did they take the whole thing and  
18 rebuild it?

19 MR. EDDY: I wasn't a part of that discussion  
20 point, and I -- I can't speak to the technical IT  
21 specifics of how SAROPS and servers work.

22 MR. WEBB: Right; right.

23 MR. EDDY: I'm not trained in that respect.

24 LIEUTENANT [REDACTED] This is Lieutenant [REDACTED]  
25 Is there a requirement or a policy on maintaining local

1 copies of your SAROPS -- SAROPS cases?

2 MR. EDDY: There is, there is. There is in --  
3 in the SAROPS handbook, there's a language that, you  
4 know, you should export your own localized --

5 MR. WEBB: You should --

6 MR. EDDY: And in a share folder --

7 MR. WEBB: Particularly, as a -- you do an  
8 export to -- kind of as an insurance policy, in case  
9 your working file -- and in the old SAROPS, I know it  
10 wasn't a database like it is now. That was more of an  
11 issue where you could corrupt the file. The idea going  
12 to what they have now built in their database is that  
13 the files don't get corrupted, and everything would  
14 work.

15 MR. FURUKAWA: Was the SAROPS user manual --  
16 is that the right document? Is that what it's called --

17 MR. EDDY: I think it's called the SAROPS Job  
18 Aid.

19 MR. WEBB: Yeah, Job Aid.

20 MR. FURUKAWA: Was that updated when SAROPS  
21 2.0 was rolled out?

22 MR. EDDY: It was.

23 MR. FURUKAWA: Okay.

24 MR. WEBB: I think so.

25 MR. EDDY: Well, I -- well I had -- I had a

1 copy of it. I referred to it a lot.

2 MR. FURUKAWA: Okay.

3 MR. WEBB: The standard training pretty much  
4 throughout the Coast Guard is to export after you run a  
5 drift.

6 MR. EDDY: Yes.

7 MR. WEBB: It's not the import them, and the  
8 next drift is just to export them as a -- as a --

9 MR. EDDY: I -- the language that they use  
10 now is archive it.

11 MR. WEBB: Archive --

12 MR. EDDY: You archive it. Just I've seen it  
13 used for --

14 MR. FURUKAWA: And you archive it locally?

15 MR. WEBB: Right.

16 MR. FURUKAWA: Okay.

17 MR. EDDY: Because you -- you have to attach  
18 it to MISLE, eventually. That's why you do that.

19 MR. WEBB: The -- so it's all done, closed  
20 out. Who -- is there a final SAROPS reviewer that looks  
21 at a case like that, and -- or any drift that you do,  
22 and make sure everything is in there?

23 MR. EDDY: We have a -- a SAROPS oversight  
24 check sheet we developed, which is basically a document  
25 that we move through, and it's a quality assurance,

1 that'll like correct data inputs for -- data inputs  
2 were correctly put into SAROPS.

3 MR. WEBB: And who's responsible for filling  
4 that out?

5 MR. EDDY: That would be the OU watchstander.  
6 Operations Unit.

7 MR. WEBB: And it would be the OU on the  
8 final watch of the case? That -- which OU does that? Is  
9 that after each -- each time they run a drift or --

10 MR. EDDY: Correct.

11 MR. WEBB: Okay.

12 MR. EDDY: Every time you run a drift.

13 MR. WEBB: Is that reviewed then by the CDO  
14 or the SMC?

15 MR. EDDY: No. It's just reviewed by -- if we  
16 weren't sure it's done, if there's an issue or  
17 discrepancy with it, then it's briefed to the SMC or  
18 the -- well, the CDO, and then the SMC. We call it our  
19 oversight check sheet, and we have very succinct  
20 language on what oversight means at District 7. It's --  
21 it's an action item where there's -- there is intent to  
22 validate all the inputs. It's not a passive --

23 MR. WEBB: Is that in your SAR plan?

24 MR. EDDY: Yes.

25 MR. WEBB: Okay. I have your SAR plan, so I

1 think I'm good. Okay.

2 MR. FURUKAWA: Okay. Jon Furukawa with NTSB  
3 again. And let's see. Chris, what's -- when SAROPS  
4 wasn't working and you said that you went to the chart,  
5 and the greaseboard, and all that, that you did manual  
6 computations -- what's the name of that called?

7 MR. EDDY: Minimum maximum. We call it min-  
8 max.

9 MR. FURUKAWA: Min-max.

10 MR. EDDY: Manual -- this was -- I would  
11 consider it to be a calculated assessment based upon  
12 the wind conditions, and using our experience from the  
13 GDOC, and the AMS, which are previous versions of  
14 SAROPS. Or -- I'm sorry. Previous versions of Search  
15 and Rescue planning software the Coast Guard used.

16 MR. FURUKAWA: So you still have the previous  
17 software?

18 MR. EDDY: Well, no. We still have working --  
19 I have -- I was trained in manual Search and Rescue  
20 planning.

21 MR. FURUKAWA: The manual. Okay.

22 MR. EDDY: Correct.

23 MR. FURUKAWA: Okay. And that's all with wind  
24 speed and current?

25 MR. EDDY: Correct. Well, there's -- there's

1 -- there's many attributes to Search and Rescue  
2 planning. There's target selection. There's wind --  
3 there's different currents, and there's drift vectors  
4 and velocities.

5 MR. FURUKAWA: Okay. Okay. Let's see. When  
6 was SAROPS 2.0 rolled out?

7 MR. EDDY: It was rolled out in the  
8 summertime of last year. July 15th is -- was our --  
9 July is when we had SAROPS.

10 MR. FURUKAWA: Okay. And --

11 MR. EDDY: 2.0.

12 MR. FURUKAWA: Let's see. July. August. It's  
13 about two and a half months before the accident. Did  
14 you guys have any cases where you could identify any of  
15 the bugs, I guess. Wind speed over 40 knots, and ships  
16 over 300 feet, I guess.

17 MR. EDDY: No, sir.

18 MR. FURUKAWA: No. So this is the first time  
19 that --

20 MR. EDDY: First time. Right. And -- and this  
21 is the first time in my professional career -- and I  
22 live in Miami, for the last -- since '89 -- with the  
23 Coast Guard, that we've ever attempted to do Search and  
24 Rescue planning inside of a -- Category 4 hurricane.  
25 So with my body of work, and my experience, I was in an



1 area I had never been before, professionally speaking.

2 MR. FURUKAWA: Okay.

3 MR. EDDY: In terms of moving resources, in  
4 terms of risk, in terms of how the ocean works, and all  
5 the standard --

6 MR. FURUKAWA: Okay.

7 MR. EDDY: -- issues that, you know, are in  
8 planning.

9 MR. FURUKAWA: And you first got to Miami in  
10 1999 for this kind of -- for SAR?

11 MR. EDDY: Correct. Well, I've been in Miami  
12 since '89. But my first SAR planning job was in 1999.

13 MR. FURUKAWA: Okay. And so -- let's see. I  
14 guess '89 was probably what, a cutter?

15 MR. EDDY: No. I was a part of a counter-  
16 narcotics team in '89.

17 MR. FURUKAWA: Okay. But since 1999, never  
18 did a SAR for -- in a hurricane.

19 MR. EDDY: We've run search and rescues in  
20 hurricanes, but there -- it -- it was not -- we knew  
21 where the vessel was, and we knew -- there was no  
22 planning aspects. It was a -- it was a very linear  
23 Search and Rescue case.

24 MR. FURUKAWA: Okay. Those were all real  
25 world, not exercises, or --

1 MR. EDDY: These are all real -- all real  
2 world cases.

3 MR. FURUKAWA: Okay.

4 MR. EDDY: But in terms of running the  
5 software in that kind of a condition, I've never done  
6 it before.

7 MR. FURUKAWA: Okay. But you guys had to  
8 back up your knowledge from the manual way of doing  
9 things to --

10 MR. EDDY: No, that's not currently taught.

11 MR. FURUKAWA: It's not currently taught. But  
12 you were taught it?

13 MR. EDDY: I was taught it; yes.

14 MR. FURUKAWA: Okay.

15 MR. WEBB: A few years back.

16 MR. EDDY: Yes. I'm a little bit older than  
17 the normal planner. So --

18 MR. FURUKAWA: When did they stop teaching  
19 the manual way of doing things?

20 MR. EDDY: I went -- my first time in Search  
21 and Rescue school was in 1999, and they were teaching  
22 it but it was being phased out in 1999, and I don't --  
23 I don't really know when they officially stopped  
24 teaching it.

25 MR. WEBB: '96, I went through and -- this is

1 Paul Webb. '96, I went through the SARS school. They  
2 taught it then. I went through again in 2003, and it  
3 was long gone --

4 MR. EDDY: Yes.

5 MR. WEBB: -- because they were in JAWS, and  
6 JAWS is another drift format.

7 MR. EDDY: Joint Automated Work Sheet.

8 MR. WEBB: Yes. And --

9 MR. EDDY: CASP back in ---

10 MR. WEBB: Right.

11 MR. FURUKAWA: Okay. Sometime in the early  
12 2000's.

13 MR. WEBB: Late '90s.

14 MR. EDDY: Late '90s.

15 MR. FURUKAWA: Late '90s.

16 MR. EDDY: So I had that training. I drew  
17 back on that training --

18 MR. FURUKAWA: Okay.

19 MR. EDDY: -- to assist Captain Coggeshall  
20 in developing something that was going to be effective  
21 --

22 MR. FURUKAWA: Okay.

23 MR. EDDY: -- and be appropriate for what we  
24 had.

25 MR. FURUKAWA: And it worked?

1 MR. EDDY: We found two debris fields.

2 MR. FURUKAWA: Okay. Okay.

3 MR. WEBB: So this is Paul Webb. Besides this  
4 case, you used the 2.0 on how many other cases prior?

5 MR. EDDY: We used 2.0, and I can't give you  
6 a quantitative -- or a number. But --

7 MR. WEBB: Prior to El Faro. And how often do  
8 you use SAROPS?

9 MR. EDDY: We use SAROPS every day. Every  
10 day.

11 MR. WEBB: Doing drifts every day? Do you  
12 guys do drifts every day?

13 MR. EDDY: Well, the District 7 Command  
14 Center will do drifts when they're SMC for cases.

15 MR. WEBB: Right.

16 MR. EDDY: But the sectors do drifts.

17 MR. WEBB: Pretty much every day?

18 MR. EDDY: Pretty much every day.

19 MR. WEBB: And during that period, with any  
20 of the cases, were there problems being reported in  
21 SAROPS --

22 MR. EDDY: Yes.

23 MR. WEBB: -- failures or unable to run  
24 through a --

25 MR. EDDY: Yes.

1 MR. WEBB: -- a simulator? And what were  
2 those problems?

3 MR. EDDY: Some of the problems were the  
4 system locking up. The prolonged EDS products that  
5 took an hour to promulgate a product. The stability  
6 issues. When I say stability issues, I'm saying there  
7 was glitches that would -- would lock up the system.  
8 You had to be very, very blatant in its input. So you  
9 couldn't -- you had to be more -- you had to sort of  
10 mirror the inputs, methodically, because you were  
11 fearful of overloading the system. And I had seen  
12 issues with it, probably within the first two weeks of  
13 it being rolled out. Well, the first two weeks since D7  
14 had it. These issues of locking up.

15 MR. WEBB: And was C3CEN and Headquarters  
16 aware of these issues? Do you know?

17 MR. EDDY: Yes. Yes.

18 LIEUTENANT [REDACTED] This is Lieutenant [REDACTED]  
19 What's your role with the sectors?

20 MR. EDDY: So my role with the sectors, as a  
21 D7 SAR specialist is I serve as a focal point for  
22 Search and Rescue policy questions. I also serve as a  
23 conduit up the program, meaning that if there's issues  
24 with the Search and Rescue infrastructure,  
25 architecture, policy, I serve the sectors as that focal

1 point up to the program compartments at D.C.

2           Initially, I saw these issues, and I reached  
3 down into the sectors, and I specifically asked them,  
4 give me your top -- I think it was top three issues  
5 that you're having. So I reached down to the Sector  
6 Command Center chiefs. There are six sectors in  
7 District 7. And I said reach out to your field  
8 planners, your SAR planners, the people, the men and  
9 women who touch the keyboard, and I want to hear from  
10 them, not you, the issues that they're having.

11           And I received a -- extensive feedback from  
12 the sectors. I would say extensive, but I did receive  
13 feedback from the sectors, and I did receive feedback  
14 from my own planners. When I say my own planners, the  
15 planners that work at District 7.

16           And I compiled that into one centralized  
17 email, and I sent it to the -- or SAR -- I sent it to  
18 the SAROPS program manager, and I sent it to Coast  
19 Guard Search and Rescue policy, and I sent it to C3CEN.

20           And my intent wasn't to be the D7 SAR  
21 specialist saying there's problems with this. My intent  
22 was to funnel the field's concerns and issues that  
23 they're having up to the chain.

24           LIEUTENANT [REDACTED] This is Lieutenant [REDACTED]  
25 again. When did you do that?

1 MR. EDDY: I did that in -- after July, and  
2 before the El Faro.

3 MR. FURUKAWA: This is Jon Furukawa with  
4 NTSB. You did it twice?

5 MR. EDDY: I'm sorry?

6 MR. FURUKAWA: You did it twice?

7 MR. EDDY: Just that one email, I just pushed  
8 it -- pushed it up.

9 MR. FURUKAWA: Okay. SAROPS program manager,  
10 the SAR Office --

11 MR. EDDY: I sent it to [REDACTED]  
12 Commander [REDACTED] is -- she used to work at Coast Guard  
13 Search and Rescue, Coast Guard SAR, which is in  
14 Washington, D.C. The program. She was responsible for -  
15 - I don't remember her role but she was -- worked at  
16 the office. She was policy.

17 MR. FURUKAWA: Okay.

18 MR. WEBB: She -- yes. She is --

19 LIEUTENANT [REDACTED] Search and Rescue policy.

20 MR. EDDY: Yes.

21 MR. WEBB: CG1. Yes.

22 MR. EDDY: At CG1.

23 MR. WEBB: Yeah, she was max head (phonetic)  
24 at --

25 MR. FURUKAWA: Okay. So --

1           MR. EDDY: And I spoke to Robert Netsch about  
2 it as well.

3           MR. FURUKAWA: And what's his title?

4           MR. EDDY: He's an -- he's an IT engineer  
5 technician who works at C3CEN.

6           MR. FURUKAWA: CTCEN?

7           MR. EDDY: C3CEN. Sorry.

8           MR. FURUKAWA: C3CEN. Okay.

9           MR. WEBB: So when SAROPS rolled out in July,  
10 were you -- was -- the East Coast was done first;  
11 correct?

12           MR. EDDY: Well, I can't speak for the East  
13 Coast. I can speak for D7.

14           MR. WEBB: D7.

15           MR. EDDY: That we had a window where we  
16 needed to be on SAROPS, and if my memory serves me  
17 correctly, there was a -- they did these remote Web-  
18 based training sessions --

19           MR. WEBB: Right.

20           MR. EDDY: -- where -- that were -- that was  
21 managed -- or facilitated by SAR school instructors,  
22 and it was basically here's the training, how it works.

23           MR. WEBB: Right. And then once you had that,  
24 you -- there were some exercises you did, and then --  
25 and then you went --



1 MR. EDDY: We shifted from SAROPS, the  
2 previous version --

3 MR. WEBB: 1.4 to --

4 MR. EDDY: -- to the new version.

5 MR. WEBB: -- 2.0, and in -- were you the  
6 first district that got on there, or did the -- the  
7 whole LANTAREA get on about the same time?

8 MR. EDDY: I don't remember what -- what  
9 district -- whether we were the first district or not.  
10 But we were the first district to sort of Beta test it  
11 a little bit. But they wanted -- the C3CEN came out to  
12 District 7, and they put on our machines to see how  
13 it'd work. But there was no -- there was no -- we  
14 didn't go live with it until July -- middle of July, I  
15 believe, or the mid part of July.

16 MR. FURUKAWA: Jon Furukawa with NTSB. How  
17 effective was the Web-based training?

18 MR. EDDY: How effective was the Web-based  
19 training?

20 MR. FURUKAWA: Was it good for learning, or -  
21 -

22 MR. EDDY: Yes, it was good for learning. I  
23 mean, there -- what was -- what SAROPS is -- once you  
24 run it and they update it, the feel is pretty  
25 intuitive. So there was a learning curve but not much,

1 the way it was presented. And it's a different -- there  
2 were some different inputs, but most of the changes  
3 were what we call under the hood, more of the software  
4 interfaces, and some more of that stuff that you don't  
5 normally see. So it was -- it was pretty -- my feedback  
6 from my guys and girls was it was very intuitive, and I  
7 think that -- I say that -- that, because that was the  
8 feedback I got. And I have to admit that the program  
9 did take the effort to make sure everyone -- make sure  
10 every -- you couldn't get SAROPS until everyone was  
11 actually --

12 MR. WEBB: Right.

13 MR. EDDY: -- went to the Web -- webinar,  
14 which they were -- they were very -- they held that  
15 line. If you didn't get it, then you couldn't get -- if  
16 you didn't have the training, you couldn't get the  
17 access to it.

18 MR. FURUKAWA: Okay. But for SAROPS, as it  
19 relates to the El Faro accident, was it -- the glitches  
20 and all that -- was it a nuisance, or did it affect --  
21 was it more of a nuisance than something critical that  
22 endangered lives?

23 MR. EDDY: It was -- it was a frustration.

24 MR. FURUKAWA: Okay.

25 LIEUTENANT [REDACTED] This is Lieutenant [REDACTED]

1 Did the problems that D7 experienced with SAROPS, with  
2 the El Faro, change any of the response operations?

3 MR. EDDY: No; it did not. No.

4 MR. FURUKAWA: Okay. And -- okay. And I just  
5 have the last questions, a few. Any other questions for  
6 Chris?

7 (No response.)

8 MR. FURUKAWA: Okay. Okay. Thank you, Chris.  
9 So at the end of an interview, I like to ask a couple  
10 questions. Is there anything that you'd like to add or  
11 change?

12 MR. EDDY: About the whole interview?

13 MR. FURUKAWA: The interview?

14 MR. EDDY: No.

15 MR. FURUKAWA: Okay. Are there any questions  
16 that we should have asked, but did not?

17 MR. EDDY: No.

18 MR. FURUKAWA: Okay. Do you have any  
19 suggestions for preventing a reoccurrence of an  
20 accident like this?

21 MR. EDDY: Any suggestions as a -- what  
22 capacity? As a SAR specialist? As a planner, or --

23 MR. FURUKAWA: Your -- your subject matter  
24 expertise.

25 MR. EDDY: My suggestions would be if you're

1 going to roll out the Search and Rescue planning  
2 software, you have redundancy in place. Meaning that  
3 you have a previous version that has already been  
4 tested and has already been vetted to the field -- or  
5 has already been established to be a viable product.

6 MR. FURUKAWA: Okay. So the SAROPS 1.0, I  
7 guess the previous version, that was gone?

8 MR. EDDY: It was -- there was no fallback.

9 MR. FURUKAWA: There's no fallback. So it  
10 disappeared once 2.0 came online. Okay. Anything else?

11 MR. EDDY: No.

12 MR. FURUKAWA: Okay. And is there anyone else  
13 that we should interview?

14 MR. EDDY: I -- no.

15 MR. FURUKAWA: Okay. Okay.

16 MR. WEBB: You know, because there -- there's  
17 -- you can do one interview and it trees off.

18 MR. EDDY: Oh, I see. I got it. Yes.

19 MR. FURUKAWA: Yes. So tomorrow we're going  
20 to interview the C3CEN guys.

21 MR. EDDY: Okay.

22 MR. WEBB: John Squires and Jack Frost for  
23 that --

24 LIEUTENANT [REDACTED] And we've already  
25 interviewed Art Allen.

1           MR. WEBB: And we got Art Allen. So kind of a  
2 get the whole picture.

3           MR. FURUKAWA: Okay. So the time is 1744 and  
4 we're ending -- let's see -- 1744 on the 14th of June  
5 2016, on a Tuesday, and we're ending the interview with  
6 Mr. Chris Eddy of District 7, SAR specialist.

7           (Whereupon, the above-entitled matter went  
8 off the record at 5:44 p.m.)

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C E R T I F I C A T E

MATTER: El-Faro Incident  
October 1, 2015  
Accident No. DCA16MM001  
Interview of Christopher J. Eddy

DATE: 06-14-16

I hereby certify that the attached transcription of page 1 to 44 inclusive are to the best of my professional ability a true, accurate, and complete record of the above referenced proceedings as contained on the provided audio recording; further that I am neither counsel for, nor related to, nor employed by any of the parties to this action in which this proceeding has taken place; and further that I am not financially nor otherwise interested in the outcome of the action.



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